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# Drinking Water Academy Bulletin

Winter 2003



## The DWA Completes Another Successful Year

The Drinking Water Academy has completed a busy fourth year. In FY 2002, it made 66 training deliveries. The DWA completed development of 5 courses, all of which can be downloaded from its Web site ([www.epa.gov/safewater/dwa/electronic.html](http://www.epa.gov/safewater/dwa/electronic.html)): Introduction to UIC Permitting; From Risk to Rule: How EPA Develops Risk-Based Drinking Water Regulations; Risk Communication under SDWA; Developing Water System Managerial Capacity; and Developing Water System Financial Capacity.

The DWA piloted two new courses, American Government Roles, and The Clean Water Act and the Safe Drinking Water Act. The DWA course catalog now offers 50 different courses.

The DWA also provided significant support to the sanitary survey program. It established one more sanitary survey training center at the Maryland Center for Environmental Training at the College of Southern Maryland. The DWA is also addressing security as part of its sanitary survey efforts (see related article on page 2).

The DWA's Web site has also expanded over the past year. Averaging 11,000 hits per month, the site now has 18 courses that can be downloaded, links to SDWA implementation information, and a Spanish language site that includes relevant information.

For FY 2003, the DWA plans to maintain the current level of deliveries and continue to increase the number of course offerings, while setting two new goals:

- Increase the use of advanced communication technologies to support training activities.
- Expand the areas of concern to include security issues at water systems.

These new goals will challenge the DWA to continue to provide training at the highest levels while responding to the audience's need for convenient, cost-effective training that addresses the issues they currently face. 🎓

## DWA Developing Security Training

Drinking water utilities face an array of requirements and challenges to ensure the safety and security of our water supplies. The DWA is developing a training course that will help to make sense of the myriad security issues.

The day-long course is geared toward federal and state drinking water staff. While not directly responsible for carrying out security requirements, these staffers perform sanitary surveys, provide technical assistance and training, and otherwise oversee, regulate, or advise drinking water systems. They must be knowledgeable about security issues in order to respond to questions from drinking water utilities and to provide direction as necessary.

The course will cover statutes, such as the Bioterrorism Act, and Presidential orders that contain security provisions applicable to drinking water systems. It will also describe EPA's role in their implementation. A major requirement of the Bioterrorism Act is that drinking water systems of a certain size conduct vulnerability assessments. The course will explain the requirements for vulnerability assessments and discuss assistance available from EPA and others for systems conducting the assessments. This assistance includes financial assistance, guidance, training, and other tools. The course will also discuss

*Continued on page 4.*


**The Before You Begin . . . videos are available for \$30 each, or \$225 for the entire set.**

## DWA Completes New Sanitary Survey Video

**T**he DWA has completed the eighth video in its popular series for sanitary survey inspectors, *Before You Begin . . .* This latest video focuses on ground water under the direct influence of surface water (GWUDI). Like the other videos, it provides a refresher on key points to consider before conducting a sanitary survey of a small water system.

In this video, Private Investigator Lance Archer investigates a small system suspected to have a GWUDI water source. The video stresses understanding GWUDI, the impact of local geology, examining wells in confined and

unconfined aquifers, looking for red flags that may indicate GWUDI, evaluating test data for potential GWUDI, follow-up tests, and regulatory requirements for GWUDI systems.

The video joins seven previously issued videos addressing cross-connections, distribution systems, gas chlorination, hypochlorination, sampling and monitoring, storage facilities, and wells. The videos are available for \$30 each (\$225 for the complete set), plus shipping costs, from the National Environmental Training Association (NETA). For an order form, go to [www.epa.gov/safewater/dwa/orderform.pdf](http://www.epa.gov/safewater/dwa/orderform.pdf). 

## DWA Focuses on Small Water System Security


**T**he DWA continues to address security issues for small water systems. In cooperation with the Association of State Drinking Water Administrators (ASDWA) and the National Rural Water Association (NRWA), the DWA developed the *Security Vulnerability Self-Assessment Guide for Small Water Systems*. The *Guide* is available in Adobe Acrobat format and can be downloaded from [www.epa.gov/safewater/dwa/vulnerability.pdf](http://www.epa.gov/safewater/dwa/vulnerability.pdf).

This *Guide* is designed to be used by the staffs of small water systems to help determine areas of possible vulnerability and to identify security enhancements that utilities should consider. This self-assessment can be conducted on all components of the system (wellhead or surface water intake, treatment plant, storage tanks, pumps, distribution system, and offices). The document is designed primarily for systems that serve populations of up to 3,300 persons.

## Drinking Water Academy Contacts

| Contact            | Location      | Telephone      | E-mail   |
|--------------------|---------------|----------------|--|
| Jackie LeClair     | EPA Region 1  | (617) 918-1549 | <a href="mailto:leclair.jackie@epa.gov">leclair.jackie@epa.gov</a>                     |
| Norma Ortega       | EPA Region 2  | (212) 637-4234 | <a href="mailto:ortega.norma@epa.gov">ortega.norma@epa.gov</a>                         |
| Rick Rogers        | EPA Region 3  | (215) 814-5711 | <a href="mailto:rogers.rick@epa.gov">rogers.rick@epa.gov</a>                           |
| Janine Morris      | EPA Region 4  | (404) 562-9480 | <a href="mailto:morris.janine@epa.gov">morris.janine@epa.gov</a>                       |
| Bill Spaulding     | EPA Region 5  | (312) 886-9262 | <a href="mailto:spaulding.william@epa.gov">spaulding.william@epa.gov</a>               |
| Bill Davis         | EPA Region 6  | (214) 665-7536 | <a href="mailto:davis.williamh@epa.gov">davis.williamh@epa.gov</a>                     |
| Stephanie Lindberg | EPA Region 7  | (913) 551-7423 | <a href="mailto:lindberg.stephanie@epa.gov">lindberg.stephanie@epa.gov</a>             |
| Dan Jackson        | EPA Region 8  | (303) 312-6155 | <a href="mailto:jackson.dan@epa.gov">jackson.dan@epa.gov</a>                           |
| Barry Pollock      | EPA Region 9  | (415) 744-1854 | <a href="mailto:pollock.barry@epa.gov">pollock.barry@epa.gov</a>                       |
| Bill Chamberlain   | EPA Region 10 | (206) 553-8515 | <a href="mailto:chamberlain.william@epa.gov">chamberlain.william@epa.gov</a>           |
| Mark Anderson      | Virginia      | (804) 786-5569 | <a href="mailto:manderson@vdh.state.va.us">manderson@vdh.state.va.us</a>               |
| James Weddell      | Texas         | (512) 239-4798 | <a href="mailto:jweddel@tnrcc.state.tx.us">jweddel@tnrcc.state.tx.us</a>               |
| Stew Thornley      | Minnesota     | (651) 215-0771 | <a href="mailto:stew.thornley@health.state.mn.us">stew.thornley@health.state.mn.us</a> |
| Murlene Lash       | EPA HQ        | (202) 564-3818 | <a href="mailto:lash.murlene@epa.gov">lash.murlene@epa.gov</a>                         |
| Mario Salazar      | EPA HQ        | (202) 564-3894 | <a href="mailto:salazar.mario@epa.gov">salazar.mario@epa.gov</a>                       |
| James Bourne       | EPA HQ        | (202) 564-4095 | <a href="mailto:bourne.james@epa.gov">bourne.james@epa.gov</a>                         |

As a follow-up activity, a subgroup of the ASDWA Sanitary Survey Work Group met on September 19 and 20, 2002 to discuss development of a method to assess small system security as part of a sanitary survey. The group finished the guidance in December. In addition to the guidance, the DWA will develop a sanitary survey training module addressing small system security. The DWA plans to deliver the training module in each EPA region.

For more information about the DWA's security activities, contact Jamie Bourne at [bourne.james@epa.gov](mailto:bourne.james@epa.gov) or (202) 564-4095. 

# Drinking Water Institute Teacher Education Program

**T**he Minnesota Department of Health (MDH) and the Minnesota Section of the American Water Works Association (AWWA) have developed the Drinking Water Institute, an award-winning 3-day seminar for science teachers. At the Institute, teachers learn about drinking water, develop their own curriculums, and prepare action plans to integrate drinking water into their classwork.

The Drinking Water Institutes are led and conducted by the Science Museum of Minnesota in St. Paul, recognized as the premier means of delivering teacher education in the state. Drinking water professionals present basic information on drinking water, including water sources, water chemistry, and how water works in nature and in the developed environment. Science Museum staff members focus on teaching teachers to present this material in an inquiry-based manner.

Instead of lecturing students about a topic and then asking questions, an inquiry-based science teacher first gives students some material, such as a ground water map. The teacher then has the students make observations and formulate questions about the material. The students determine how to find the answers, reach a conclusion, and defend it. In this way, the *science students act like scientists*.

## Teacher Training and Networking

The Science Museum staff leads the teachers in a series of inquiry-based activities, which the teachers later use in their classrooms. Having the teachers develop their own inquiry-based curriculums, rather than telling them in writing what to do, greatly increases the chances that drinking water topics will find their way into the teachers' classrooms.

Another important aspect of the Institute is the community connection. On one day of the Institute, water superintendents work with the teacher from their area. In this way, teachers learn about their region's water quality and supply issues. They also establish a relationship with their local water superintendent, who can speak to the teacher's class and host a class tour of the water treatment plant.

## Institutes Planned for 2003

Funded with seed money from the MDH and Minnesota AWWA, the first Drinking Water Institute was held in Eden Prairie, Minnesota, during June 2001. The 18 teachers attended a follow-up session and presented their action

plans at the Science Museum of Minnesota the following October.

The second Drinking Water Institute will be held in New Ulm, Minnesota, in June 2003, and the third is planned for Rochester, Minnesota, also in 2003. Sponsors hope that 24 teachers will attend the future Institutes and that at least two can be held each year. However, keeping that schedule depends on securing other sources of funding, such as donations from commercial organizations and grants from foundations.


Teachers who complete the entire course, including the follow-up session, and submit an action plan receive two college credits.

## Institutes Get Results

Evaluations and follow-up with the teachers indicate the program is getting curriculum of drinking water curriculum into classrooms. The Institute's first class annually educates approximately 2,500 students on the importance of drinking water.

In 2002, the Drinking Water Institute received a national educational award from American Water Works Association.

This successful program can be replicated outside Minnesota. The Science Museum of Minnesota, which focuses on inquiry-based teaching, can train teachers in other states on how to use this technique.

More information on the Drinking Water Institute, including how to contact committee members and the Science Museum of Minnesota, is available at [www.mnawwa.org/Education/youth\\_ed.html](http://www.mnawwa.org/Education/youth_ed.html). 

**By working with their local water superintendents, teachers learn about regional drinking water issues and connect with someone who can address their classes or host field trips to the local drinking water treatment plant.**

**One of the world's most important resources, drinking water is often taken for granted.**



**The New England states are moving to adopt the use of PDAs to assist in conducting sanitary surveys; other states and several Tribal programs are also moving in this direction.**

## Excitement Continues to Build for Electronic Sanitary Survey Project

**M**omentum is quickly building as work continues on the Electronic Sanitary Survey Project. This project encourages the use of personal digital assistants (PDAs) by sanitary survey inspectors.

Each PDA will contain a checklist with the eight sanitary survey elements for inspectors to use when gathering and recording data during a survey. When the sanitary survey is complete, the inspector will download the data to an Access database on a desktop computer. A module will generate reports from the database.

In the Bulletin's previous issue, we described the project's benefits:

- ✦ Standardizing the sanitary survey format.
- ✦ Increasing sanitary survey inspectors' efficiency.
- ✦ Making data from sanitary surveys more accessible to drinking water managers.
- ✦ Providing the ability to analyze the data from the surveys.

Jamie Bourne, Chancellor of the Drinking Water Academy, and Chris Lavelle of the Idaho Department of Environmental Quality gave a joint presentation at the Association of Drinking Water Administrators' meeting in Salt Lake City. Interest from the states was high, so Jamie also gave an informal evening working session. The current project has two components. The first is a generic sanitary survey format that incorporate the eight elements of a sanitary survey. A work group of states, EPA, and sanitary survey trainers will develop this aspect of the project. EPA, state, and SDWIS-STATE

### Sample Checklist Menu

Visual CE (2 records) 8:30

PWS # 1090002

- General Info
- Groundwater
- Surface Water
- Treatment
- Storage
- Distribution
- Pumping
- Financial Capacity
- Managerial Capacity

Record Edit Option [Icons]

staff members are also participating to ensure compatibility between the two programs.

The second element is a pilot of the program in several states. The DWA will assist those states in adapting the generic form to include any state-specific requirements. The DWA will also provide training and technical assistance to the pilot states, who must purchase the hardware to support the project. Currently, the New England states are moving to adopt the use of PDAs; Nebraska, Iowa, New Mexico, Arizona, and several Tribal programs are also moving in this direction.

For more information on the project, contact Jamie Bourne at [bourne.james@epa.gov](mailto:bourne.james@epa.gov) or (202) 564-4095. ✦

### DWA Developing Security Training (Continued from Page 1)

emergency response plans and available assistance for developing them. Last, the course will explain how EPA will share and protect, as appropriate, security-related information.

The DWA expects that the training will be available in the spring and hopes to present it once in each EPA Region. For more information about the course, contact Jamie Bourne at (202) 564-4095 or [bourne.james@epa.gov](mailto:bourne.james@epa.gov). ✦





## Training Course Schedule

| Course Title  | Audience   | Schedule         | Location                   | Contact   |
|---|--|------------------|----------------------------|---|
| Risk Communication Under the Safe Drinking Water Act            | Region 10 trainers   | Jan. 28-30, 2003 | Lake Oswego, OR            | Maryann Helferty<br>(206) 553-1587<br><a href="mailto:helferty.maryann@epa.gov">helferty.maryann@epa.gov</a>            |
| Arsenic Rule  | Regional and state staff   | Jan. 29, 2003    | 120 locations by satellite | Holly Fleming<br>(202) 564-9909<br><a href="mailto:fleming.holly@epa.gov">fleming.holly@epa.gov</a>                     |
| Surface Water Rules   | Regional and state staff   | Jan. 30, 2003    | 120 locations by satellite | Holly Fleming<br>(202) 564-9909<br><a href="mailto:fleming.holly@epa.gov">fleming.holly@epa.gov</a>                     |
| Risk Communication Under the Safe Drinking Water Act            | Region 10 water systems  | Jan. 31, 2003    | Lake Oswego, OR            | Maryann Helferty<br>(206) 553-1587<br><a href="mailto:helferty.maryann@epa.gov">helferty.maryann@epa.gov</a>            |
| Sanitary Survey Training  | Region 4 sanitary survey inspectors  | Feb. 4-7, 2003   | Alpharetta, GA             | Janine Morris<br>(404) 562-9480<br><a href="mailto:morris.janine@epa.gov">morris.janine@epa.gov</a>                     |
| Risk Communication Under the Safe Drinking Water Act            | Alaska drinking water staff  | Mar. 3-7, 2003   | Anchorage, AK              | James Weise<br>(907) 269-7647<br><a href="mailto:james_weise@envircon.state.ak.us">james_weise@envircon.state.ak.us</a> |
| Sanitary Survey Training  | Alaska sanitary survey inspectors  | May 12-16, 2003  | Anchorage, AK              | Nicole Duclos<br>(907) 747-7756<br><a href="mailto:nicole.duclos@uas.alaska.edu">nicole.duclos@uas.alaska.edu</a>       |
| Risk Communication Under the Safe Drinking Water Act            | Water system operators, managers, and regulators   | May 13, 2003     | Boise, ID                  | Margo Partridge<br>(360) 753-9459<br><a href="mailto:partridge.margo@epa.gov">partridge.margo@epa.gov</a>               |
| Laboratory Certification: Chemical Parameters                   | Regional and state staff with responsibilities for certifying laboratories that analyze drinking water samples | June 16-20, 2003 | Cincinnati, OH             | Pat Hurr<br>(513) 569-7678<br><a href="mailto:hurr.pat@epa.gov">hurr.pat@epa.gov</a>                                    |
| Laboratory Certification: Microbiological Parameters            | Regional and state staff with responsibilities for certifying laboratories that analyze drinking water samples | June 23-27, 2003 | Cincinnati, OH             | Pat Hurr<br>(513) 569-7678<br><a href="mailto:hurr.pat@epa.gov">hurr.pat@epa.gov</a>                                    |
| Introduction to the Public Water System Supervision Program     | Headquarters staff   | Sept. 9, 2003    | Washington, DC             | Jamie Bourne<br>(202) 564-4095<br><a href="mailto:bourne.james@epa.gov">bourne.james@epa.gov</a>                        |
| Introduction to EPA's Drinking Water Source Protection Programs | Headquarters staff   | Sept. 16, 2003   | Washington, DC             | Jamie Bourne<br>(202) 564-4095<br><a href="mailto:bourne.james@epa.gov">bourne.james@epa.gov</a>                        |
| American Government Roles                                       | Headquarters staff   | Dec. 9&10, 2003  | Washington, DC             | Jamie Bourne<br>(202) 564-4095<br><a href="mailto:bourne.james@epa.gov">bourne.james@epa.gov</a>                        |

DWA courses may be presented as requested. See the course catalog on the DWA Web site for more information ( [www.epa.gov/safewater/dwa/course.html](http://www.epa.gov/safewater/dwa/course.html) ).